

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

UNITED SERVICES AUTOMOBILE ASSOCIATION)
)
a Texas reciprocal inter-insurance exchange,)
)
Plaintiff,)
)
v.) Civil Action No. 2:21-cv-246
)
PNC BANK N.A.,) JURY TRIAL DEMANDED
)
Defendant.)
)

COMPLAINT

Plaintiff United Services Automobile Association (“USAA”), by its undersigned counsel, for its Complaint against defendant PNC Bank, National Association (“PNC”), states as follows, with knowledge as to its own acts, and on information and belief as to the acts of others:

1. This lawsuit is brought to address PNC’s use of USAA’s patented technology relating to remote check deposit for mobile banking systems. This patented technology enables USAA to connect members of the military and their families across the globe to financial services. USAA developed this technology as part of its mission to improve the financial security of its members. In its decades of serving the military community, USAA has worked to innovate in serving the needs of its members, including a lifestyle that can make getting to a bank branch difficult, particularly if they are out to sea or deployed outside the United States. PNC has chosen to use USAA’s patented technologies without permission for its own commercial gain. This lawsuit seeks remedies for PNC’s misconduct.

II. THE PARTIES

2. Plaintiff USAA is a reciprocal inter-insurance exchange and unincorporated association organized under the laws of the State of Texas having its principal place of business at

9800 Fredericksburg Road, San Antonio, Texas 78288. The USAA family of companies is dedicated to the financial well-being of members of the military and their families through the provision of insurance and banking products and services, and investing services. USAA does business in this judicial district.

3. On information and belief, PNC is a national banking association organized under the laws of the United States of America. PNC does business throughout the United States, including in this judicial district.

III. JURISDICTION AND VENUE

4. Subject matter jurisdiction is based on 28 U.S.C. § 1338, in that this action arises under federal statute, the patent laws of the United States (35 U.S.C. §§ 1, *et seq.*).

5. The Court has personal jurisdiction over PNC because it has substantial, systematic and continuous contacts with this judicial district. PNC has a regular and established place of business in the State of Texas and in the Eastern District of Texas, including operating several physical branches in this judicial district, and conducting business with customers residing in this judicial district both through its branches and its mobile banking services. PNC has committed acts of patent infringement and, as detailed below, contributed to or induced acts of patent infringement by others in this judicial district. PNC is registered to do business in Texas and maintains an agent authorized to receive service of process within Texas.

6. Venue is proper under 28 U.S.C. § 1400(b) because PNC has committed acts of infringement and maintains a regular and established place of business in this judicial district.

7. PNC occupies several permanent, physical places within this District from which PNC carries out its business. For example, PNC has physical “solution center” branches in the following locations in this District: (1) Allen Solution Center, 829B W Stacy Road, Suite 100, Allen, Texas 75013; (2) Denton Solution Center, 2310 W. University Drive, #1540, Denton, Texas 76201; and (3) Plano Solution Center, 7300 Dallas Pkwy, Suite A140, Plano, Texas 75024. PNC conducts business from these solution centers using physical equipment and employees located within the District. For example, on information and belief, each of these solution center branches

allows customers to obtain certain banking services from PNC via in-person appointments with PNC employees. In addition, each of these locations offers customers the opportunity to conduct banking business via video tellers and/or traditional ATM machines. As a further example, PNC maintains several additional ATM locations in this district.

IV. BACKGROUND ALLEGATIONS

USAA's Investments And Pioneering Innovations

8. This is an action for infringement of patents awarded to research and development teams at USAA for their years of work developing and improving technologies that, among other things, allow banking customers to easily and conveniently deposit paper checks into their accounts from their smartphones – wherever they might be in the world.

9. USAA has been serving present and former members of the U.S. military and their families since 1922 and is one of America's leading insurance and financial services companies. USAA offers its members a wide range of insurance and banking products and services, and investing services designed to help them meet their financial security needs. Headquartered in San Antonio, Texas, with offices in several states and Europe, USAA employs more than 33,000 people to provide for the financial well-being of over 12 million members.

10. Unlike traditional banks, which usually maintain a network of brick-and-mortar bank branches or ATMs for customers to use, USAA typically interacts with its members remotely, either by mail, telephone, or with increasing frequency through its usaa.com website or USAA's mobile application. USAA's online and mobile presence is critical to its members' well-being, particularly as USAA's military members are often stationed in distant locations around the world with limited access to traditional banking services.

11. Driven by its mission to serve its members, starting in or around 2004, USAA invested substantial research and development resources into developing and implementing systems and methods that would provide USAA's members with a real-time capability to deposit a financial instrument from just about anywhere. These pioneering systems and methods resulted in a prototype developed by 2005, and the launch in 2006, of a consumer device remote check

deposit system under the name Deposit@Home®. In 2009, USAA launched an application branded as Deposit@Mobile®, which today is available and used worldwide on devices such as iPhones, iPads and Android-based mobile devices. For the first time in banking history, USAA's patented systems allowed customers to deposit checks anytime, anywhere by taking photographs with consumer electronics that consumers actually own or can easily acquire, such as a mobile phone's digital camera. USAA has invested millions of dollars and thousands of employee-hours in the development and implementation of its mobile deposit technologies.

The Asserted USAA Patents

12. This action involves three of the patents that protect USAA's investments in its mobile deposit technologies: U.S. Patent Nos. 10,769,598 (the "'598 Patent"), 10,402,638 (the "'638 Patent"), and 9,224,136 (the "'136 Patent") (collectively, "USAA Patents").

13. The '598 Patent is entitled "Systems and methods for remote deposit of checks," and its inventors are Charles Lee Oakes III, Randy Ray Morlen, Michael Frank Morris, Reynaldo Bartlette Medina III, Greg Alan Harpel, Gabriel Glenn Gavia, Bharat Prasad, Frank Kyle Major, and Jeffrey Neal Pollack. The '598 Patent derives its effective filing date from an application that USAA filed on October 31, 2006.

14. Among other things, the '598 Patent's claims solve discrete, technological problems associated with computing systems used as part of capturing images of checks for deposit, representing new, novel and useful improvements over the existing and/or patentably distinct means and methods. For example, the '598 Patent's system and method includes technological solutions to assist the customer in depositing checks without using an ATM by operations such as receiving electronic image data of the check from a user device, determining the check amount, identifying an account to receive the check amount, transmitting the electronic image of the check, and updating the account to reflect the check amount, as well as determining whether the check has been previously deposited (for example, to prevent loss of funds due to fraud). Additional details and improvements to remote check depositing systems are further described in the patent.

15. The '638 Patent is entitled "Digital camera processing system," and its inventors are Charles Lee Oakes III, Randy Ray Morlen, Michael Frank Morris, Reynaldo Medina III, Greg Alan Harpel, Gabriel Glenn Gavia, Bharat Prasad, Frank Kyle Major, and Jeffrey Neal Pollack. The '638 Patent derives its effective filing date from an application that USAA filed on October 31, 2006.

16. Among other things, the '638 Patent's claims solve discrete, technological problems associated with computing systems used as part of capturing images of checks for deposit, representing new, novel and useful improvements over the existing and/or patentably distinct means and methods. For example, the inventions in the '638 Patent's claims provide improved functionality over conventional techniques, resulting in an enhanced user interface for the customer's mobile device and enhanced performance. As another example, the '638 Patent's claims improve the quality of captured check images by using the mobile device's display and camera systems to provide instructions to the user while the user is attempting to capture check images. Additionally, the '638 Patent's inventions help to make remote check deposit systems commercially viable by reducing error rates, reducing fraud, and improving security, for example, through error detection, confirming the mobile check deposit can go forward after optical character recognition ("OCR"), or authentication of the user. The '638 Patent's improvements to mobile check depositing systems are further described in its specification.

17. The '136 Patent is entitled "Systems and methods for remote deposit of checks," and its inventors are Charles Lee Oakes III, Randy Ray Morlen, Bharat Prasad, and Troy Bartlette Huth. The '136 Patent derives its effective filing date from an application that USAA filed on October 31, 2006.

18. Among other things, the '136 Patent's claims solve discrete, technological problems associated with computing systems used as part of capturing images of checks for deposit, representing new, novel and useful improvements over the existing and/or patentably distinct means and methods. For example, the '136 Patent's system and method allows customers to deposit checks remotely by operations such as receiving an image of the front side of a check,

processing the image of the front side of the check to obtain information related to the check, receiving an image of the back side of the check, and processing the image of the back side of the check to determine whether the check was endorsed. The patent's improvements to remote check depositing systems are further described in its specification.

19. On October 1, 2019, the '136 Patent overcame a petition for Covered Business Method review ("CBM") (CBM2019-00027). The Patent Trademark and Appeals Board ("PTAB") denied institution, finding that the claims of the '136 Patent were directed to technological features that are novel and unobvious over the prior art and solve technical problems using technical solutions and were thus ineligible for CBM review. Subsequently, this Court found the '136 Patent claims were "not directed to an abstract idea under Step One of *Alice* and are therefore eligible for patent protection as a matter of law." *United Services Automobile Association v. Wells Fargo Bank, N.A.*, Case No. 2:18-cv-00366, Dkt. 182, at 21 (E.D. Tex. Dec. 20, 2019), *report and recommendation adopted*, Dkt. 239 (Jan. 6, 2020). The Court found, among other things, that the '136 Patent "improve[s] check depositing technology . . . by enabling, via enumerated specific steps, to deposit checks remotely and quickly without the need for specialized equipment, such as those employed by bank tellers or an ATM." *Id.* at 13-14.

20. Together, the USAA Patents are directed to improved computing systems that enable commercially-viable remote check deposit systems used today by both USAA and PNC. The USAA Patents solved technological problems associated with earlier systems used for capturing images of checks. These innovations allowed USAA, for the first time in banking history, to allow users to transform general-purpose consumer devices that they have in their homes or are otherwise easy to acquire into a check-image capture device. This had a profound impact on USAA's members and USAA's ability to accept deposit of remote checks, including because it eliminated the need for consumers (many of whom have limited means) to acquire or access specialized check processing equipment to deposit checks remotely.

21. Prior to USAA's inventions, checks were processed for deposit using specialized check scanning machines, which typically were located in bank facilities or leased to businesses

for use in their back offices. High-tech equipment manufacturers sold a variety of check scanning machines that cost up to tens of thousands of dollars.

22. The passage of the Federal “Check 21 Act” in 2003 increased the technical risks associated with check imaging. A report by Alogent entitled “The Client Business Case for Remote Deposit Capture” explained how, under Check 21, items would be returned due to poor image quality, either on the digital image, or the printed Image Replacement Document (IRD).

23. The deposit of check images requires compliance with certain technical specifications, such as the “Specifications for Electronic Exchange of Check and Image Data,” also known as DSTU X9.37-2003: a technical specification published by the Accredited Standards Committee X9, Inc. that spells out the file sequences, record types, and field formats to be used for the electronic exchange of check MICR line, associated check processing data and check images.

24. An industry white paper entitled “Check 21: Controlling Image Quality at the Point of Capture” was published in 2004. The white paper acknowledges that one challenge facing remote deposit capture (“RDC”) is that the human eye does not have the ability to distinguish between a check image that meets digital processing criteria and one that does not. For example, the white paper points out that what is an acceptable image to one person may be unacceptable to another. The white paper discussed the importance of ensuring that an acceptable image of a check is captured at the first point of entry to the check clearing process, as a check image with quality issues is likely to be unpayable and represents a liability to the bank. Further, the report identified and discussed basic measurement metrics to ensure that a check image may be successfully cleared. Also in 2004, the FSTC, a financial industry technical group, published a report entitled “Image Quality and Usability Assurance - Phase I Project.” The report discussed a number of factors such as image size, skew, lightness/darkness, focus, and noise, among others that can lead to a failed image. Other publications discussing the perceived challenges of remote deposit include statements made in 2005 by CIT Engineering Team, who designs specialized scanners for the RDC

process, the RDC process is so delicate that small insights and/or small oversights are what distinguish an outstanding check scanning product from a mediocre one.

25. When USAA introduced its novel technology to the market, it was met with both delight and concern because of its disruptive force. For example, in September 2009, AdAge published a report entitled “How Mobile Technology Is Changing Banking’s Future,” which observed that “USAA represents the bleeding edge of mobile banking technology” and described its pioneering system as a “technological development [] that allow[s] for deposits by iPhone and mobile payments.” As another example, in June 2009, Celent published an article entitled “USAA’s Mobile Remote Deposit Capture Initiative.” The article stated that mobile RDC is so disruptive that many banks might pass on the idea. The report acknowledged that USAA’s mobile RDC provided a compelling competitive advantage over other banks.

26. By facilitating and improving remote mobile deposit, the innovations of the USAA Patents facilitate significant cost savings and provide many other financial benefits to banks. For example, in 2011, NCR published a white paper entitled “Mobile Remote Deposit Capture.” The white paper reported that the average cost of processing a paper check transaction at a bank branch is \$3.75, and that a mobile deposit costs just \$0.14.

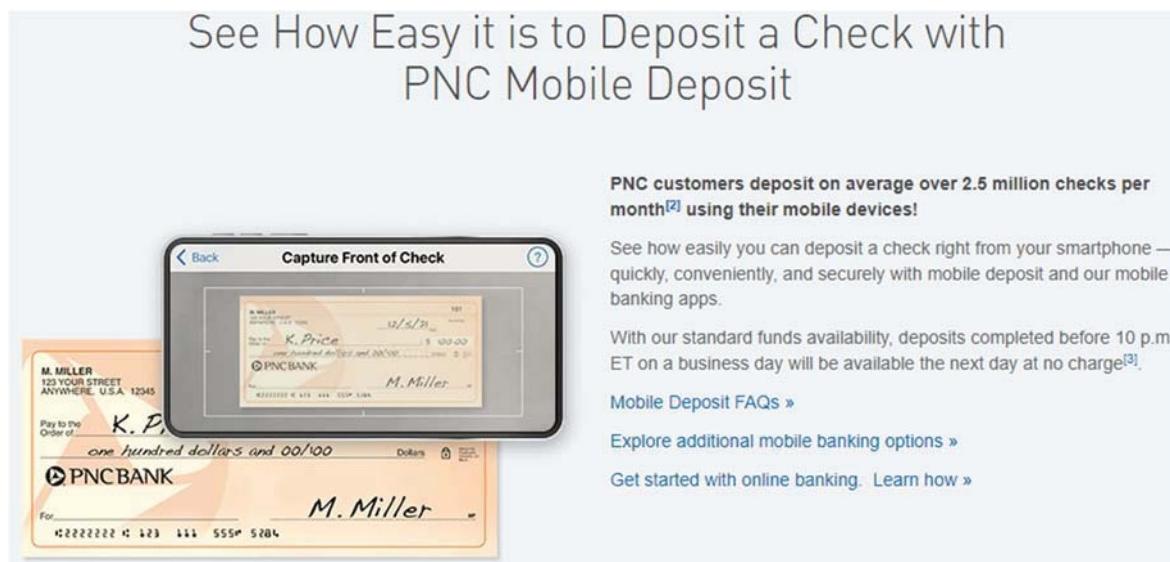
27. As another example, in 2015, Celent published a report entitled “State of Remote Deposit Capture 2015 - Mobile Is the New Scanner.” The abstract of the report observed that mobile RDC was becoming the alternative to specialized check scanners, with banks racing to offer mobile RDC, which Celent predicted would have a profound effect on the branch channel. The report also observed that USAA’s systems result in a substantial improvement over the existing marketplace of complex, expensive check scanning machines and that by the date of the report mobile check image capture users outnumbered those using specialized desktop devices by more than 40 to 1. As another example, in 2016, an article entitled “Mobile Check Deposits - Pro Tips to Ensure They Go Smoothly” was published by an industry technology analyst on nerdwallet.com. The article acknowledged that mobile check deposit had become the most popular

feature of mobile banking, estimating that there are about 87 million people in the U.S. depositing checks using mobile check deposit.

PNC Bank's Infringement

28. PNC is one of the largest full-service consumer and commercial banking providers in the United States. According to PNC's website, PNC customers now deposit on average over 2.5 million checks per month using their mobile devices.

29. PNC's mobile remote deposit capture systems, including but not limited to *PNC Mobile Deposit* and *PNC Deposit On-Site Mobile®* are referred to herein, along with any other infringing instrumentalities that include similar functionality, as "PNC Mobile Deposit." PNC states that users can "easily [] deposit a check right from your smartphone" using PNC Mobile Deposit, touting that deposit can be done "quickly, conveniently, and securely with mobile deposit and our mobile banking apps":



30. PNC also promotes PNC Mobile Deposit with video advertisements, including commercials specifically touting mobile deposit, and has offered special promotions to customers to encourage them to try mobile deposit.

31. PNC receives mobile check deposits from customers who, for example, download its application for iPhone or Android devices and use the application and device as instructed by PNC, including as detailed on PNC's website and in its user guidelines.

32. PNC did not release PNC Mobile Deposit until years after USAA had already implemented and released its patented technology to widespread adoption, demonstrating the commercial viability of USAA's patented technology.

33. In approximately May/June 2021, PNC touted what it claims was a new version of PNC Mobile Deposit that would involve "fewer steps," give customers "more control," and make "mobile deposit even faster."

34. On information and belief, this new version of PNC Mobile Deposit was designed to infringe the USAA Patents.

35. PNC was on notice and had actual knowledge of its infringement of the USAA Patents before the filing of the Complaint.

36. Each of the USAA Patents claims priority to one of two closely related October 31, 2006 patent applications filed by USAA, which have resulted in a total of thirteen issued patents to date (including the three asserted in this action). Six of the other patents in these families have previously been asserted by USAA in patent infringement suits in this District, including four patents asserted against PNC in pending cases. Case No. 2:20-cv-00319 (E.D. Tex.), which USAA filed on December 4, 2020, alleges infringement of U.S. Patent Nos. 10,482,432 (the "'432 Patent") and 10,621,559 (the "'559 Patent"), both of which are children to the '136 Patent asserted here. On March 31, 2021, USAA filed another complaint in Case No. 2:21-cv-00110 (E.D. Tex.) regarding PNC's infringement of U.S. Patent Nos. 10,013,605 (the "'605 Patent"), which is a parent to the '638 Patent and '598 Patent, and 10,013,681 (the "'681 Patent"), which is a child to the '136 Patent.

37. USAA also previously filed two complaints in this District against Wells Fargo for infringement of certain of USAA's mobile deposit patents. The second of those two complaints, filed in August 2018, included claims for infringement of five patents in the two October 2006

patent applications families, including the '136 Patent (asserted here) and '681 Patent and '605 Patent (subsequently asserted against PNC). That lawsuit against Wells Fargo went to trial in January 2020 with a jury ultimately awarding USAA over \$102 million for Wells Fargo's infringement of the '681 Patent and '605 Patent.

38. On October 22, 2020, PNC confirmed that it had actual knowledge of the USAA remote deposit patents, acknowledging that it was aware of USAA's prior litigation against Wells Fargo. Thus, PNC was fully aware of the USAA Patents prior to the filing of this Complaint and prior to PNC's design and release of the May/June 2021 mobile deposit app updates discussed above. PNC nonetheless proceeded to release its May/June 2021 mobile deposit app despite its knowledge of the USAA Patents and its infringement.

39. Moreover, since at or shortly after the time of its issuance, the USAA Patents have been publicly known and widely publicized in the banking industry, including in major publications read by PNC employees. For example, the *American Banker*, a publication which describes itself as "the essential resource for senior executives in banking and financial services, keeping its users updated on vital developments and focusing sharply on their most important concerns" ran an article, published in January 2020, discussing the jury verdict finding Wells Fargo liable for infringing the USAA Patents and awarding USAA \$102.8 million in past damages. The article reported "Wells Fargo has lost a [] mobile deposit patent lawsuit brought against it by USAA," noted that "other banks should be on alert if they use the same technology," and specifically referenced USAA's Deposit@Mobile product. Similar articles appeared in other major publications such as *Bloomberg* and *Business Insider*. Indeed, some of the news coverage of USAA's mobile deposit patents specifically references PNC Mobile Deposit. For example, *S&P Global*, a market intelligence publication covering commercial banking, published a November 2019 article about another prior jury verdict against Wells Fargo for infringement of USAA mobile deposit patents stated "other banks with apps for mobile check deposit could also be on the hook," and specifically listed "PNC Financial Services Group Inc." Upon information and belief, PNC

monitors these industry publications. For example, PNC's website has specifically touted and cited coverage from the *American Banker*, *Bloomberg*, *Business Insider*, and *S&P Global*.

40. In addition to the widespread coverage of USAA's lawsuits against Wells Fargo, USAA's Deposit@Mobile® technology has been well-known and publicized for years, and USAA receives widespread acclaim for its pioneering innovations in mobile deposit. For example, a 2020 report by Javelin Strategy and Research named USAA "as an overall 'Leader' in both mobile and online banking," and also evaluated PNC. Upon information and belief, PNC is aware of this and other acclaim for USAA's Deposit@Mobile® products, including because it was widespread in the industry and because some of the press surrounding USAA also referred specifically to PNC. As an example, a 2011 article in the *Washington Post* entitled "PNC launches mobile bank deposits" noted that "USAA Federal Savings first introduced mobile deposit in 2009." PNC has previously cited articles from the *Washington Post* on its website and, on information and belief, closely monitors media coverage discussing its own products.

41. USAA is further informed and believes that PNC has actual and constructive knowledge of the USAA Patents as a result of its awareness of USAA's Deposit@Mobile® products and USAA's patent marking. For example, USAA marks its Deposit@Mobile® products pursuant to 35 U.S.C. § 287 through the USAA mobile application. As a further example, the Deposit@Mobile® mobile application contains a "United States Patents" section specifically listing the USAA Patents by number.

42. Further, to the extent that PNC contends it lacked actual knowledge of any aspect of its infringement of the USAA Patents before the time of service of this Complaint, it was also willfully blind by deliberately avoiding an investigation. Further, PNC has additional actual knowledge of its infringement of the USAA Patents by virtue of this complaint.

43. As detailed below, PNC's conduct with respect to its Mobile Deposit products, including its May/June 2021 Mobile Deposit Product, constitutes willful infringement of the USAA Patents. PNC's past and continuing use of the USAA Patents is not licensed or authorized by USAA in any way.

44. PNC has profited, and continues to profit, including by providing its infringing mobile deposit service to millions of PNC customers without USAA's permission and without any compensation to USAA, materially harming USAA and its members.

V. FIRST CLAIM FOR RELIEF – '598 PATENT

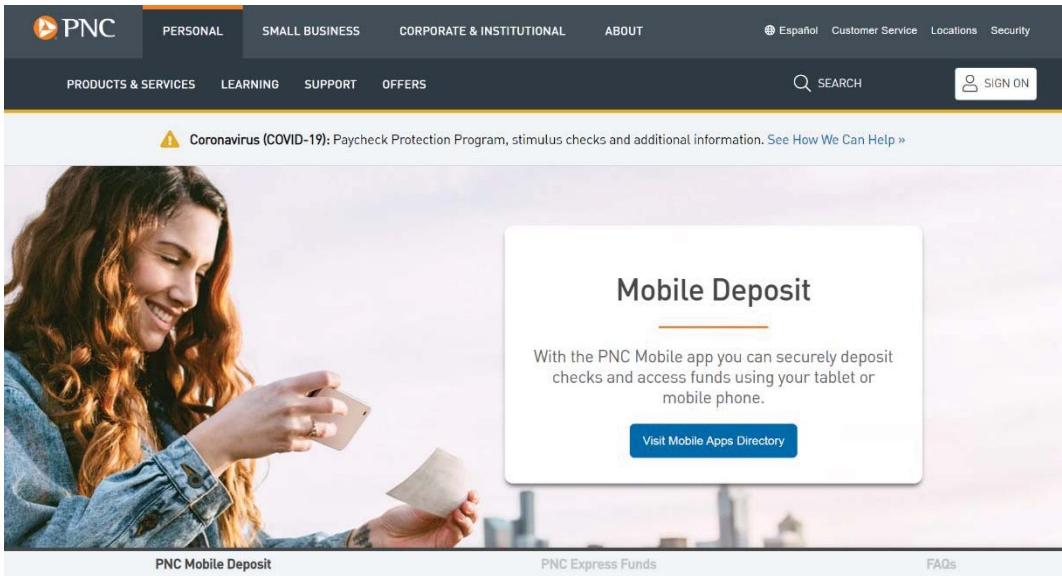
45. USAA re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

46. The '598 Patent, entitled "Systems and methods for remote deposit of checks" was duly and legally issued on September 8, 2020. A true and correct copy of the '598 Patent is attached as Exhibit A.

47. USAA owns by assignment the entire right, title, and interest in and to the '598 Patent, including the exclusive right to seek damages for past, current, and future infringement thereof.

48. USAA is informed and believes, and on this basis alleges, that PNC, agents of PNC, and/or third parties acting under PNC's direction and control, have committed and continue to commit acts of direct infringement of one or more claims of the '598 Patent literally and/or under the doctrine of equivalents, by making, using, selling, offering to sell and/or importing into the United States, PNC Mobile Deposit. Further, PNC controls the infringing system as a whole and obtains benefits from it. Indeed, PNC requires users to use the infringing system in order to deposit checks to their PNC account via a mobile device, and provides terms and conditions governing their use. For example, PNC states on its website that "Use of the Mobile Deposit feature requires a supported camera-equipped device and you must download a PNC mobile banking app," and that all "mobile banking terms and conditions" apply.

49. For example, the PNC Mobile Deposit system facilitates remote deposit of funds into a user's account via Internet-based communications without using an ATM. This is illustrated, for example, in the following illustrative images from PNC's website and marketing materials.



The screenshot shows the PNC mobile deposit landing page. At the top, there's a navigation bar with links for PERSONAL, SMALL BUSINESS, CORPORATE & INSTITUTIONAL, ABOUT, and various service categories like PRODUCTS & SERVICES, LEARNING, SUPPORT, and OFFERS. There are also links for ESPAÑOL, Customer Service, Locations, and Security, along with a SEARCH bar and a SIGN ON button. A yellow banner at the top right informs users about the Coronavirus (COVID-19) Paycheck Protection Program, stimulus checks, and additional information, with a link to "How We Can Help". The main visual is a woman with long brown hair smiling while holding a smartphone and a physical check, with a city skyline in the background. A white callout box titled "Mobile Deposit" contains text explaining that with the PNC Mobile app, users can securely deposit checks and access funds using their tablet or mobile phone, followed by a "Visit Mobile Apps Directory" button. Below the main image are three smaller links: "PNC Mobile Deposit", "PNC Express Funds", and "FAQs".

See How Easy it is to Deposit a Check with
PNC Mobile Deposit

PNC customers deposit on average over 2.5 million checks per month^[2] using their mobile devices!

See how easily you can deposit a check right from your smartphone — quickly, conveniently, and securely with mobile deposit and our mobile banking apps.

With our standard funds availability, deposits completed before 10 p.m. ET on a business day will be available the next day at no charge^[3].

[Mobile Deposit FAQs »](#)

[Explore additional mobile banking options »](#)

[Get started with online banking. Learn how »](#)



The inset image shows the "Capture Front of Check" screen of the PNC mobile app. It displays a camera viewfinder over a physical check. The check is from "K. Price" to "M. Miller" for "one hundred dollars and 00/100" and is dated "12/01/20". The check is deposited through "PNCBANK". The app interface includes a "Back" button and a "Done" button with a circular arrow icon.

50. Additionally, PNC Mobile Deposit system contains one or more processors, communication circuitry to receive data from a user-owned device, and one or more tangible, non-transitory machine-readable media comprising processor-executable instructions.

App Store Preview

This app is available only on the App Store for iPhone and iPad.

PNC Mobile Banking 4+

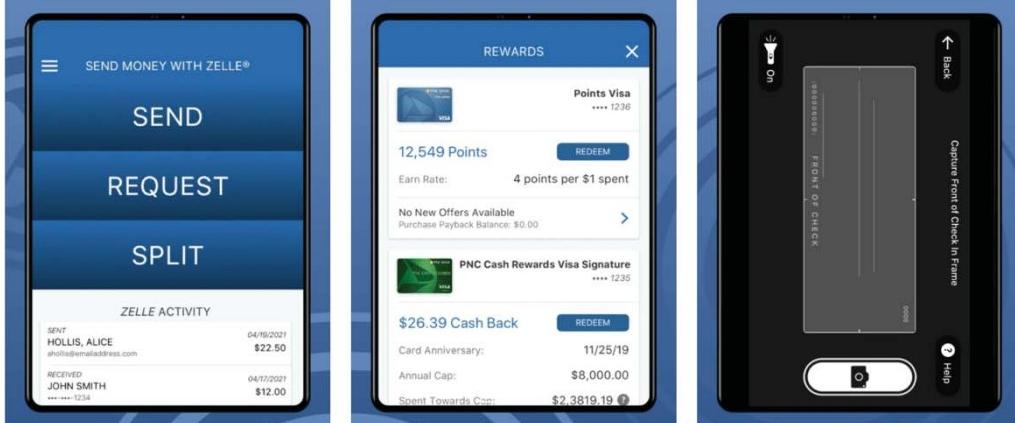
Digital Banking Solutions
PNC Bank, N.A.

#46 in Finance
★★★★★ 4.8 • 1M Ratings

Free



Screenshots [iPhone](#) [iPad](#)



Check balances & recent transactions – See current account activity for your checking, savings, credit card and loan accounts.

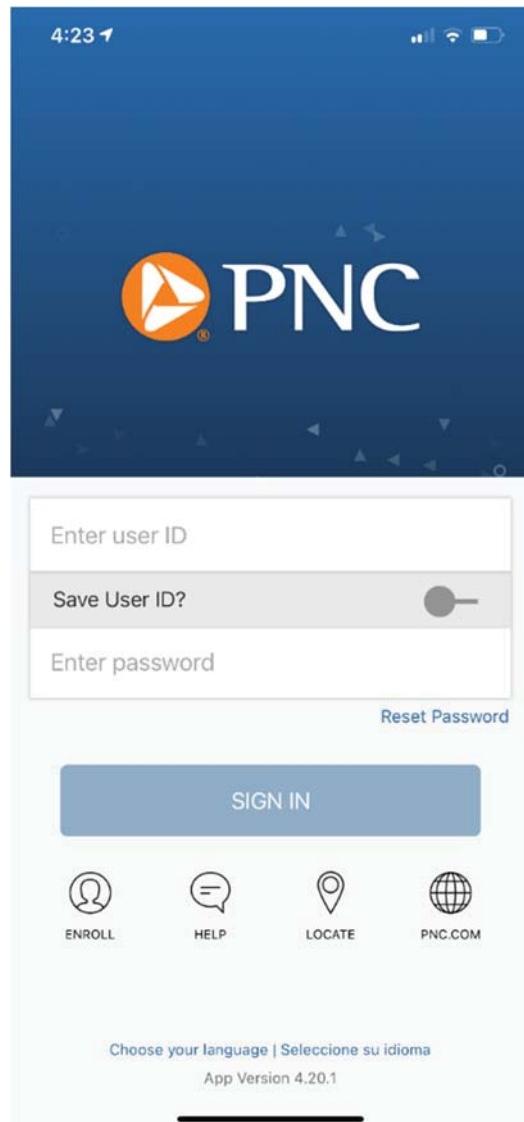
Protect your accounts – Set up Touch ID or Face ID to securely sign on to the app. Or, reset your password quickly and conveniently if you need to.

Send money with Zelle® – Send money simply, to people you know and trust (i) using your mobile number or email address.

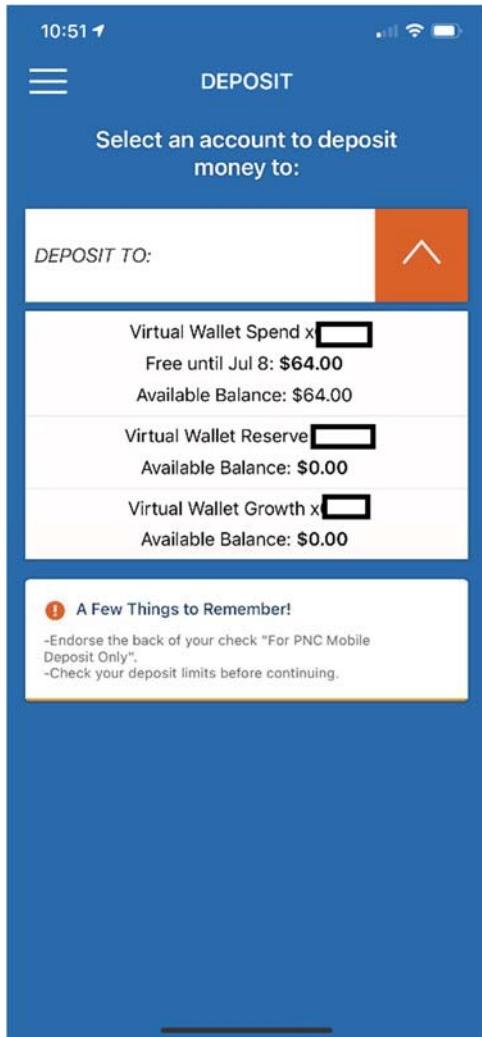
Transfer funds – Transfer funds between eligible PNC accounts and external bank accounts (ii).

Make deposits – Deposit checks quickly and easily with your iOS device (iii).

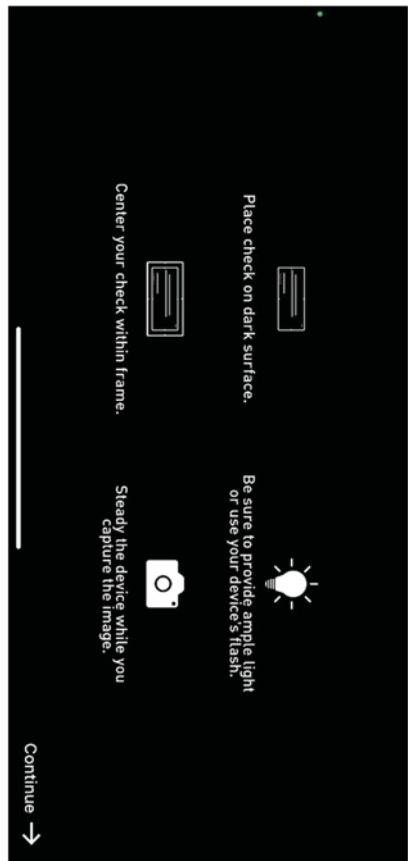
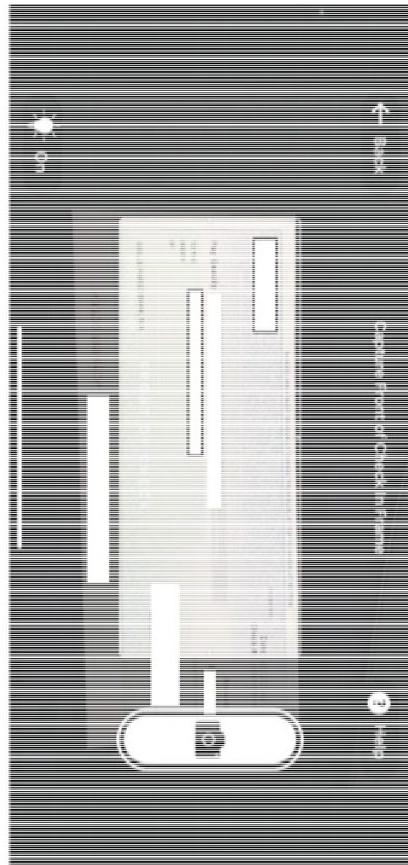
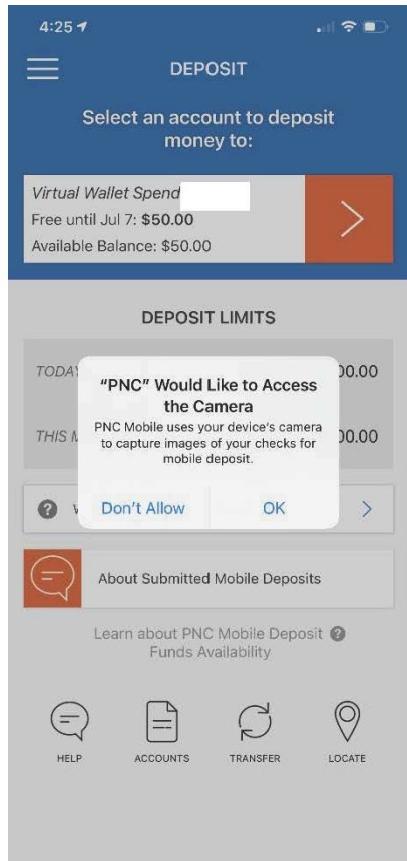
51. As another example, PNC Mobile Deposit authenticates interactions with the user-owned device based on authentication data received from the user-owned device via the communication circuitry, including as depicted in the below screenshot from PNC's Mobile Deposit application version 4.20.1.



52. As another example, PNC Mobile Deposit allows users to choose an account for receipt of the amount of the check.

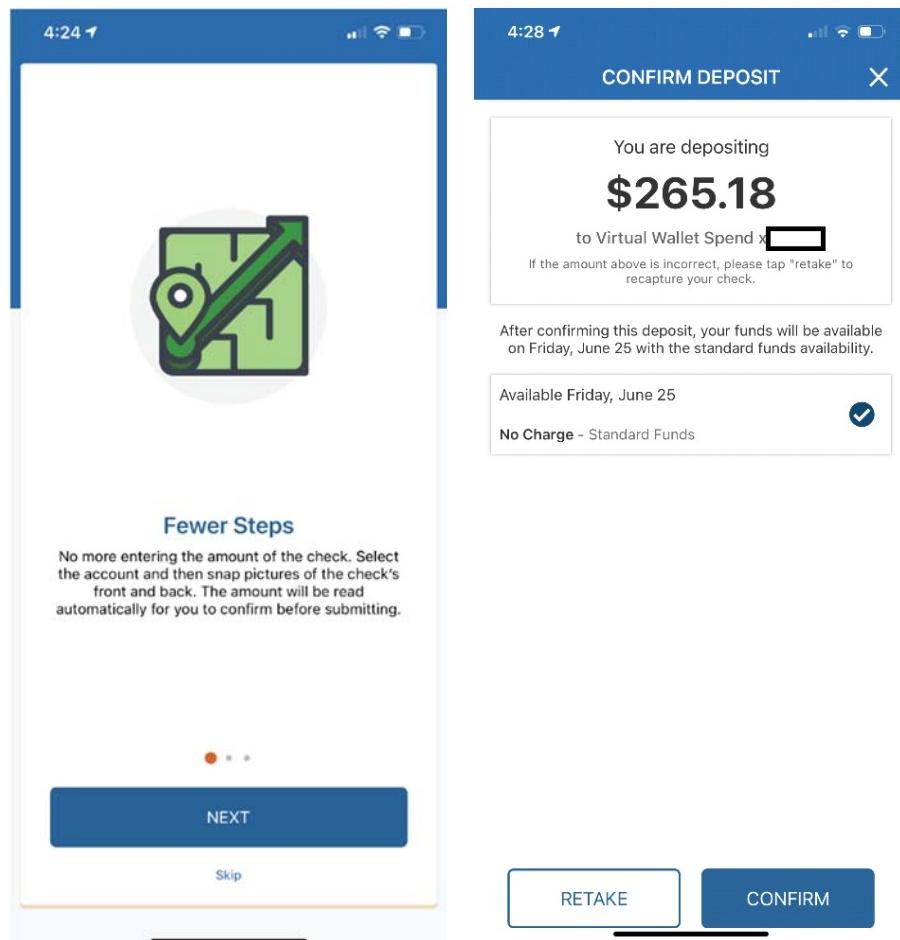


53. As another example, PNC Mobile Deposit instructs the customer to take photos of the front and the back of the check, and accepts the photos via the communication circuitry.

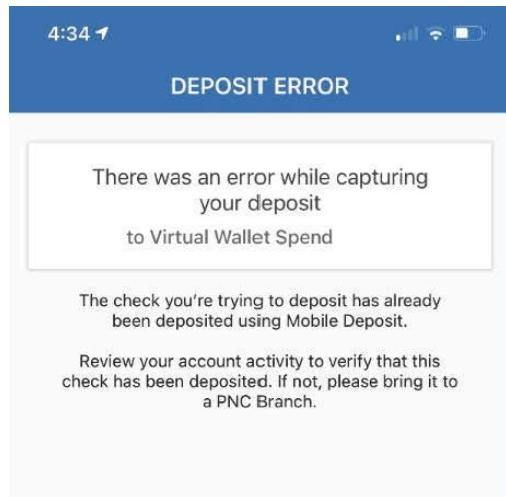


54. As another example, PNC Mobile Deposit determines the amount of the check.

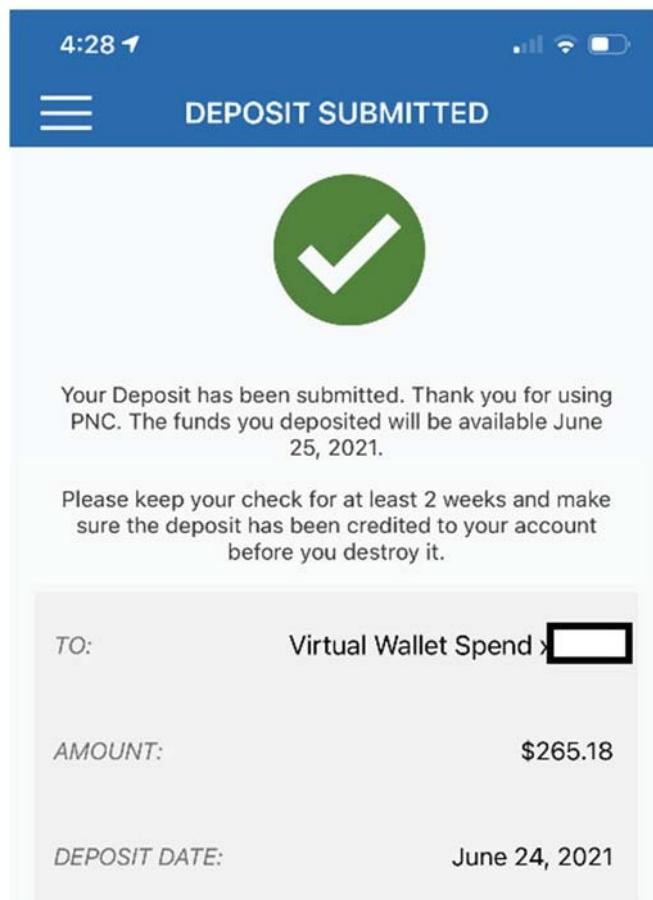
After determining the amount of the check, PNC Mobile Deposit asks the customer: “If the amount above is incorrect, please tap ‘retake’ to recapture your check.”

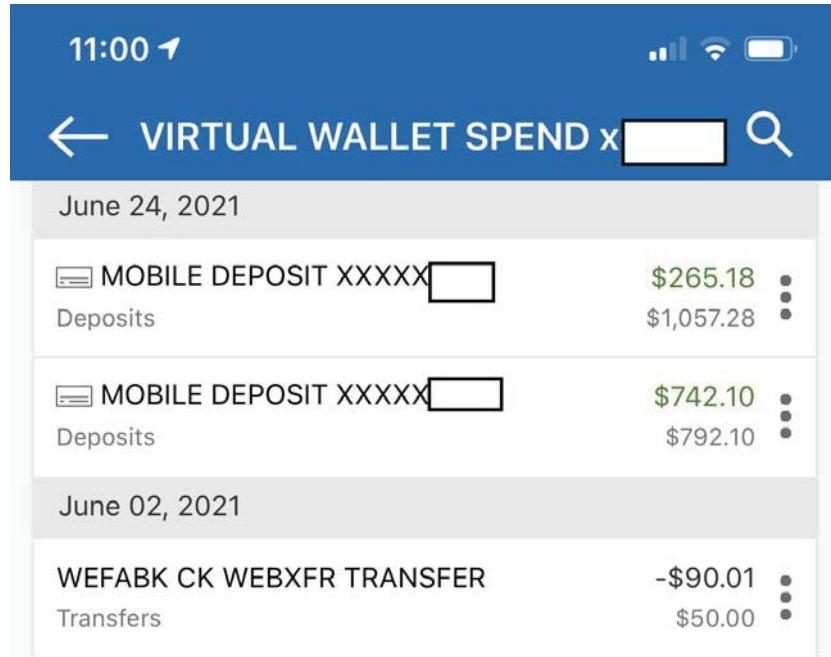


55. As another example, PNC Mobile Deposit determines whether the check was previously deposited.



56. As another example, PNC Mobile Deposit updates the account to reflect the check amount after the check is successfully processed and the check is determined to not have been previously deposited.





57. PNC also is inducing infringement of the '598 Patent, in violation of 35 U.S.C. § 271(b), including by knowingly encouraging or aiding third parties to make, use, sell or offer to sell PNC Mobile Deposit in the United States, or to import PNC Mobile Deposit into the United States, and/or in violation of 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied PNC Mobile Deposit in or from the United States, without license or authority from USAA, with knowledge of or willful blindness to the fact that PNC's actions will induce others to directly infringe the '598 Patent. PNC actively encourages, directs, and controls third parties, including its end users, to make and/or use PNC Mobile Deposit in an infringing manner, including through PNC's website, advertisements, documentation/instructional material, customer support, application and feature descriptions, and in-application instructions. PNC has intentionally aided and encouraged third parties, including its end users, to use PNC Mobile Deposit in the United States in a manner that it knows would infringe or have a high probability of infringing the '598 Patent, with the specific intent that those performing the acts infringe the '598 Patent.

58. PNC is contributorily infringing the '598 Patent in violation of 35 U.S.C. § 271(c), by selling, offering to sell, and/or importing into the United States, and/or in violation of 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States, PNC Mobile

Deposit for use in infringing the '598 Patent, constituting a material part of the invention, knowing PNC Mobile Deposit to be especially made or especially adapted for use in infringing the '598 Patent. PNC Mobile Deposit is not a staple article or commodity of commerce suitable for substantial non-infringing use.

59. As a result of PNC's infringement of the '598 Patent, USAA has been damaged. In addition, PNC's infringing acts and practices have caused and are causing immediate and irreparable harm to USAA. USAA is entitled to recover for damages sustained as a result of PNC's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

60. USAA alleges that PNC's infringement of the '598 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to USAA pursuant to 35 U.S.C. §§ 284-285. As discussed above, PNC has had knowledge of the '598 Patent and its infringement thereof. Despite having this knowledge, PNC has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for USAA's patent rights.

VI. SECOND CLAIM FOR RELIEF – '638 PATENT

61. USAA re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

62. The '638 Patent, entitled "Digital camera processing system," was duly and legally issued on September 3, 2019. A true and correct copy of the '638 Patent is attached as Exhibit B.

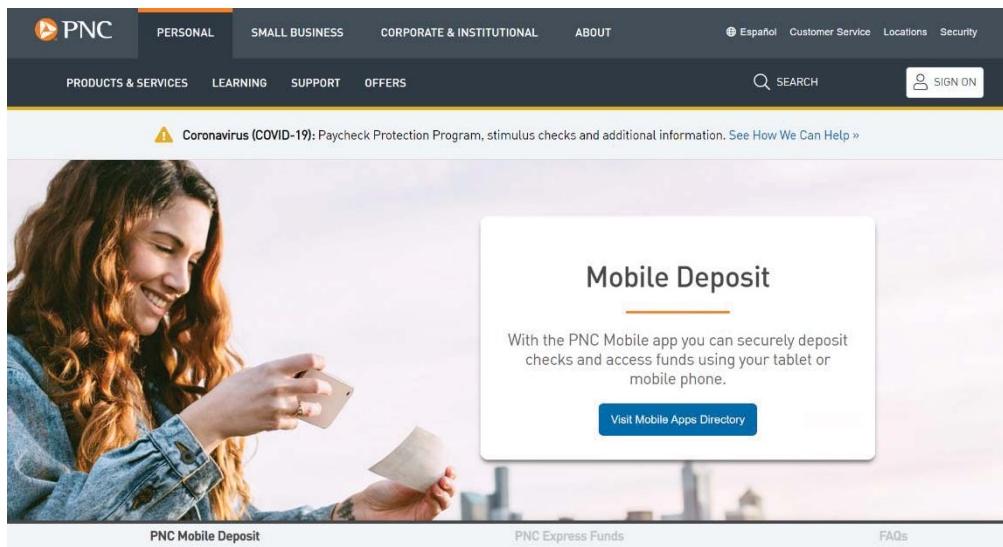
63. USAA owns by assignment the entire right, title, and interest in and to the '638 Patent, including the exclusive right to seek damages for past, current, and future infringement thereof.

64. USAA is informed and believes, and on this basis alleges, that PNC, agents of PNC, and/or third parties acting under PNC's direction and control, have committed and continue to commit acts of direct infringement of one or more claims of the '638 Patent literally and/or under

the doctrine of equivalents, by making, using, selling, offering to sell and/or importing into the United States, PNC Mobile Deposit.

65. Further, PNC controls the infringing system as a whole and obtains benefits from it. Indeed, PNC requires users to use the infringing system in order to deposit checks to their PNC account via a mobile device, and provides terms and conditions governing their use. For example, PNC states on its website that “Use of the Mobile Deposit feature requires a supported camera-equipped device and you must download a PNC mobile banking app,” and that all “mobile banking terms and conditions” apply.

66. For example, the PNC Mobile Deposit system allows a customer to deposit a check using a customer’s handheld mobile device, through PNC’s downloaded app. This is illustrated, for example, in the following illustrative images from PNC’s website and marketing materials.



See How Easy it is to Deposit a Check with PNC Mobile Deposit

PNC customers deposit on average over 2.5 million checks per month^[2] using their mobile devices!



See how easily you can deposit a check right from your smartphone — quickly, conveniently, and securely with mobile deposit and our mobile banking apps.

With our standard funds availability, deposits completed before 10 p.m. ET on a business day will be available the next day at no charge!^[3]

[Mobile Deposit FAQs »](#)

[Explore additional mobile banking options »](#)

[Get started with online banking. Learn how »](#)

App Store Preview

This app is available only on the App Store for iPhone and iPad.

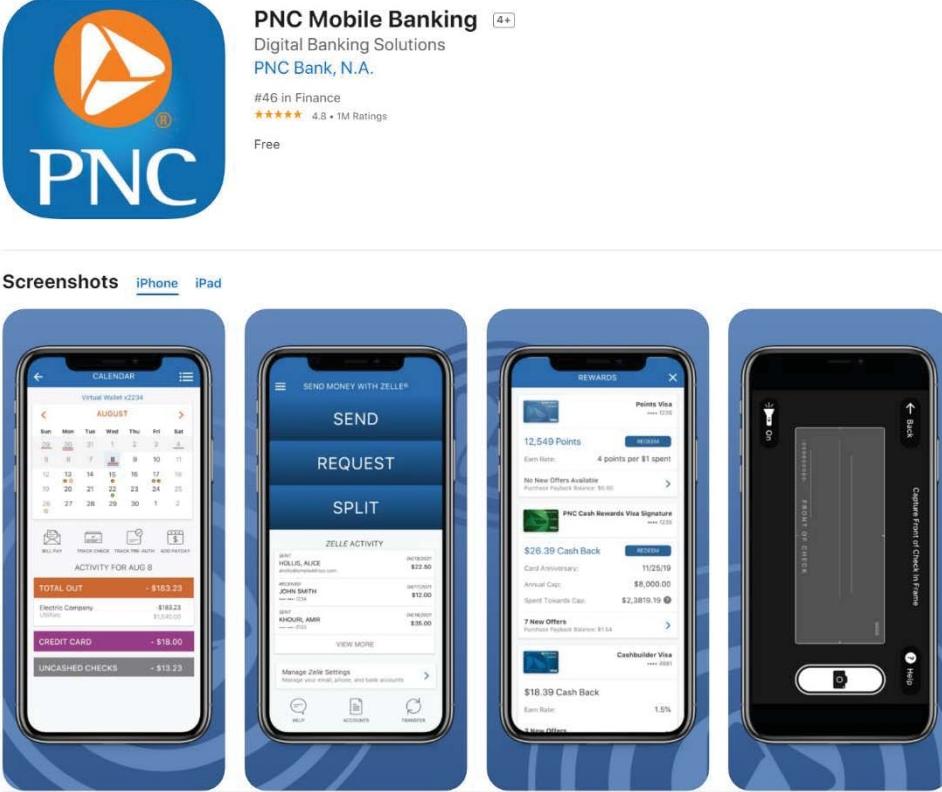
PNC Mobile Banking 4+

Digital Banking Solutions
PNC Bank, N.A.

#46 in Finance

★★★★★ 4.8 • 1M Ratings

Free



Check balances & recent transactions – See current account activity for your checking, savings, credit card and loan accounts.

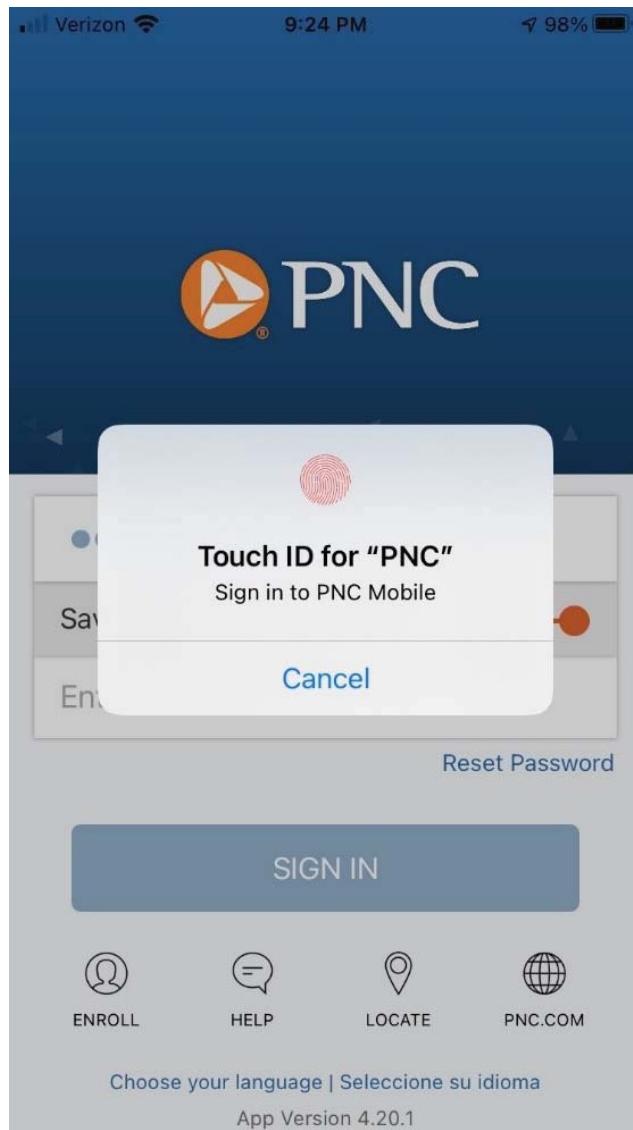
Protect your accounts – Set up Touch ID or Face ID to securely sign on to the app. Or, reset your password quickly and conveniently if you need to.

Send money with Zelle® – Send money simply, to people you know and trust (i) using your mobile number or email address.

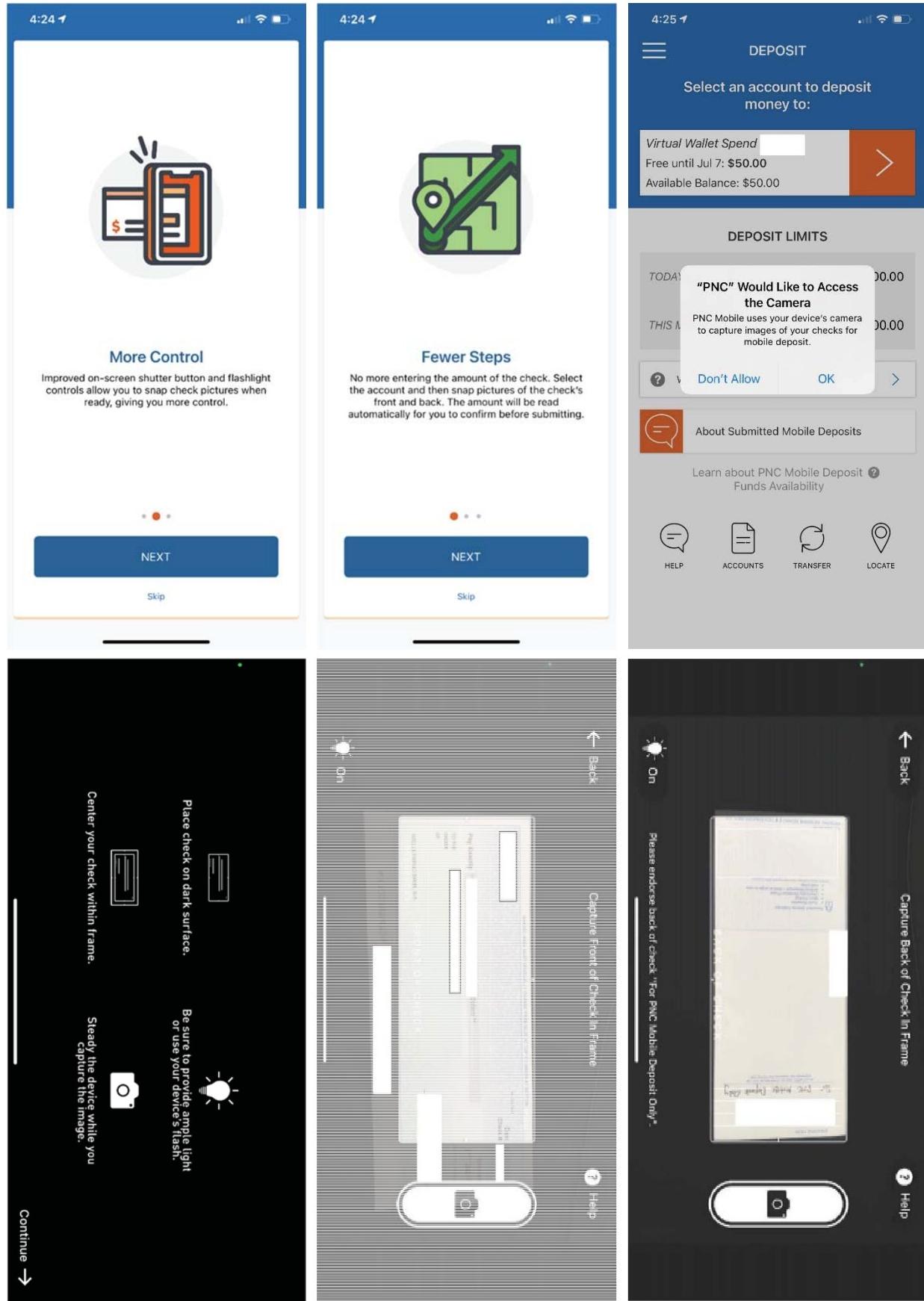
Transfer funds – Transfer funds between eligible PNC accounts and external bank accounts (ii).

Make deposits – Deposit checks quickly and easily with your iOS device (iii).

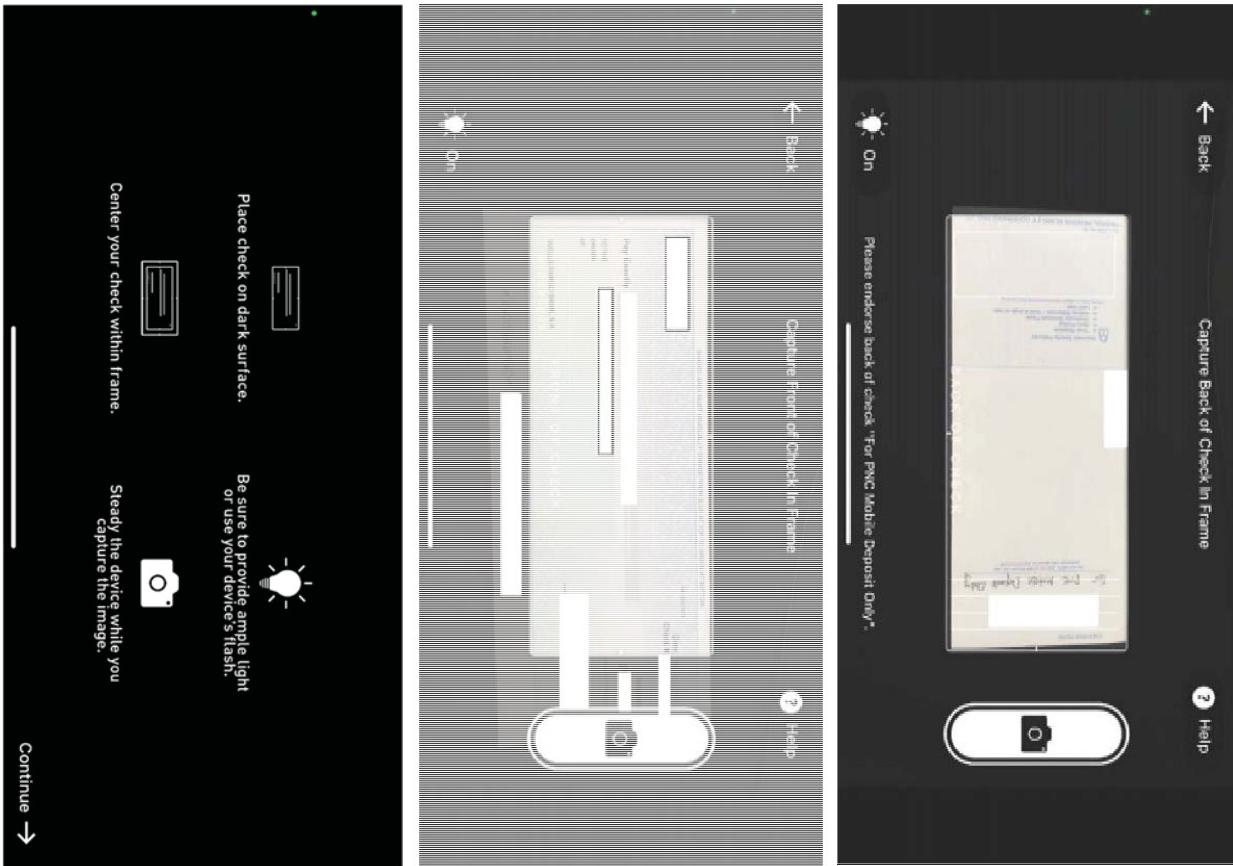
67. As another example, the PNC Mobile Deposit system is configured to authenticate the customer using customer's fingerprint data, including as depicted in the below screenshot from PNC's Mobile Deposit application version 4.20.1.



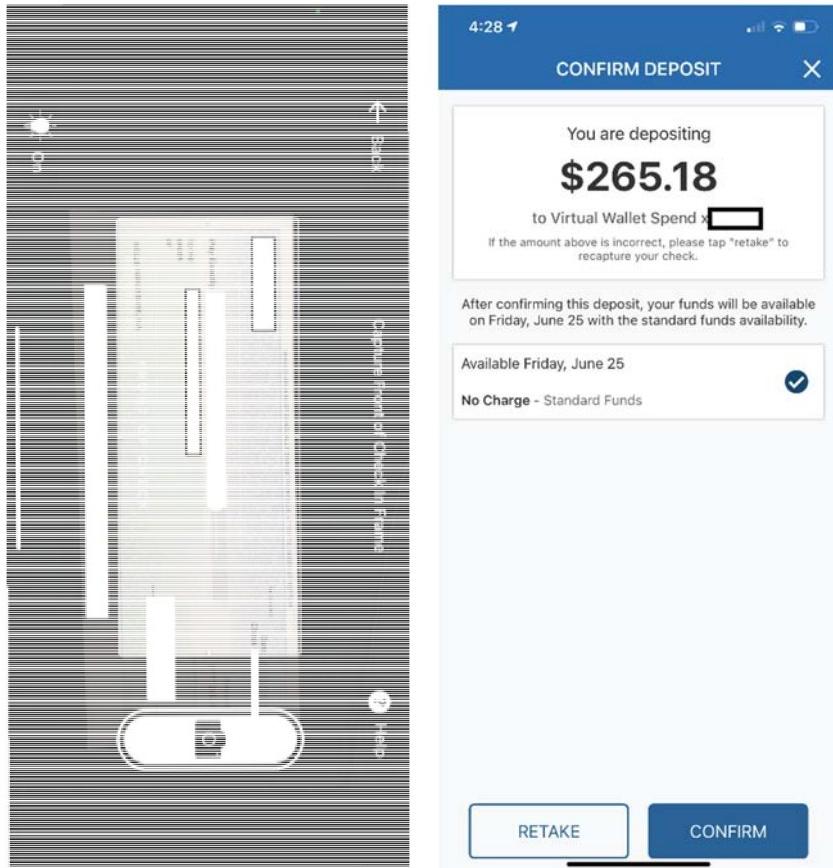
68. As another example, PNC Mobile Deposit instructs the customer to take a photo of the check.



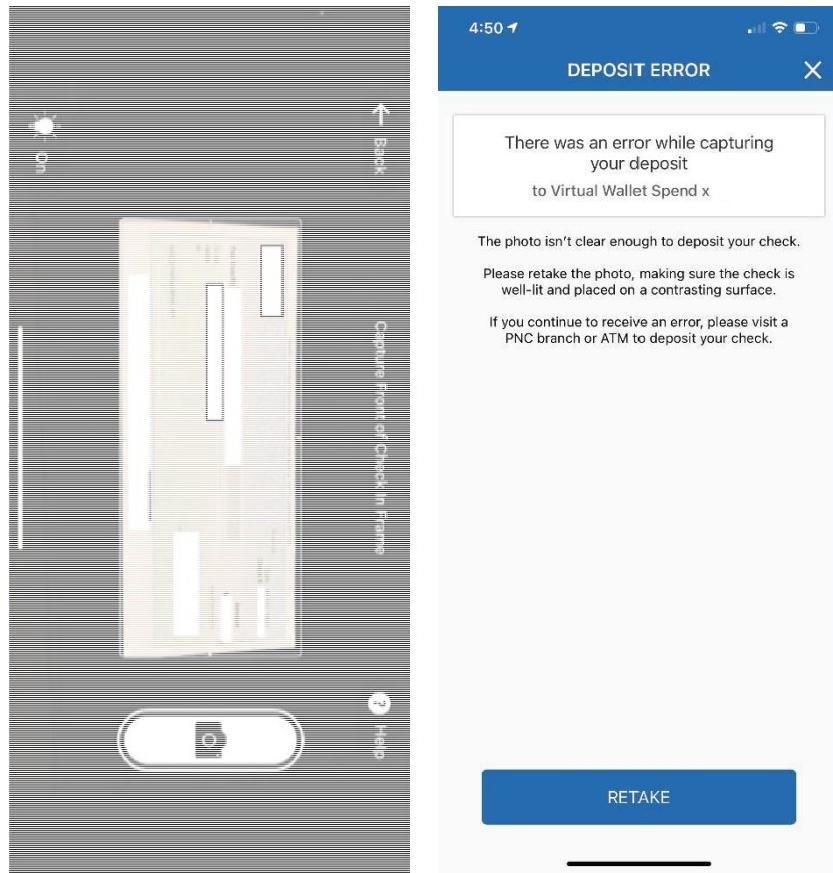
69. As another example, PNC Mobile Deposit uses a display of the customer's handheld mobile device to assist the customer in taking the photo of the check, such as assisting the customer as to an orientation for taking the photo.



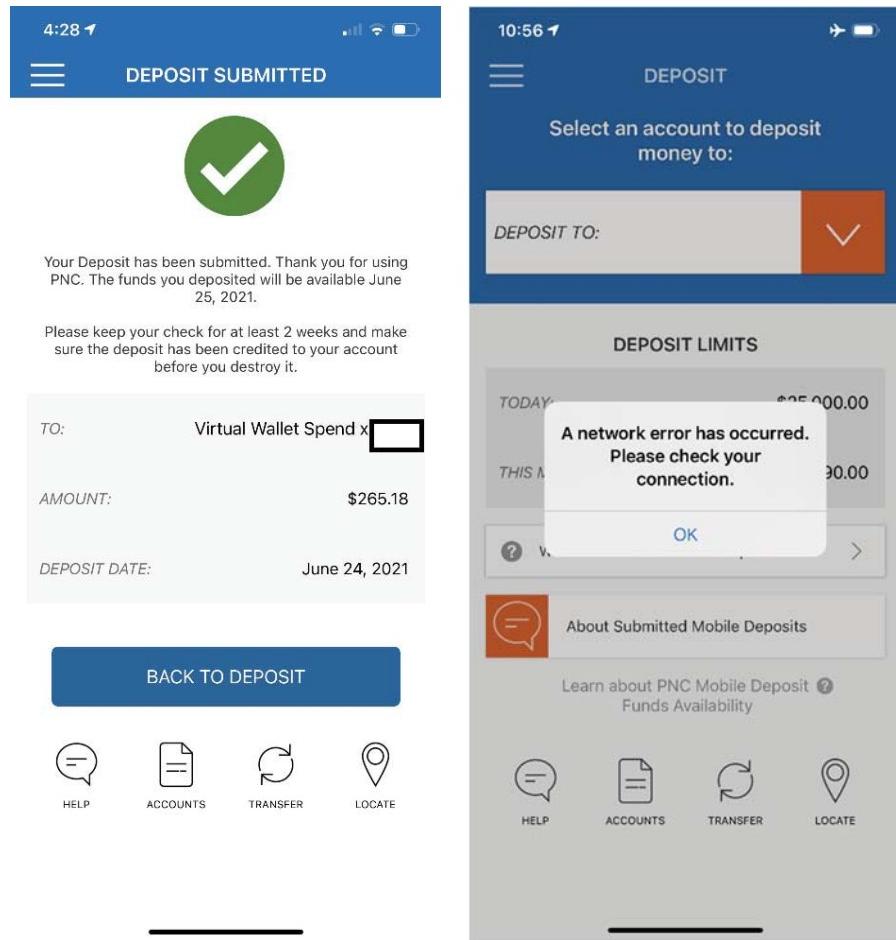
70. As another example, PNC Mobile Deposit confirms that the mobile check deposit can go forward after OCR is performed on the check in the photo. For example, PNC Mobile Deposit performs OCR on the photo of the check to determine the amount of the check.



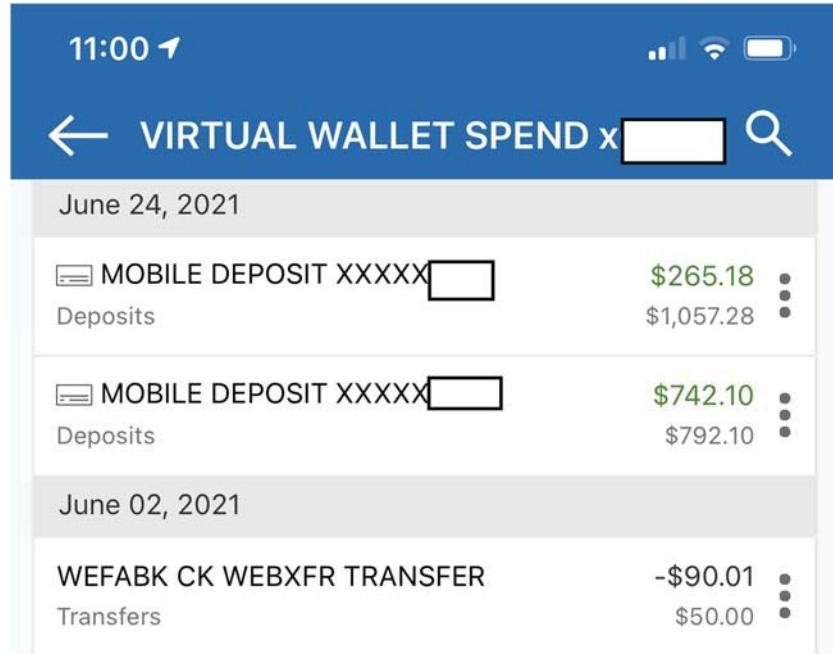
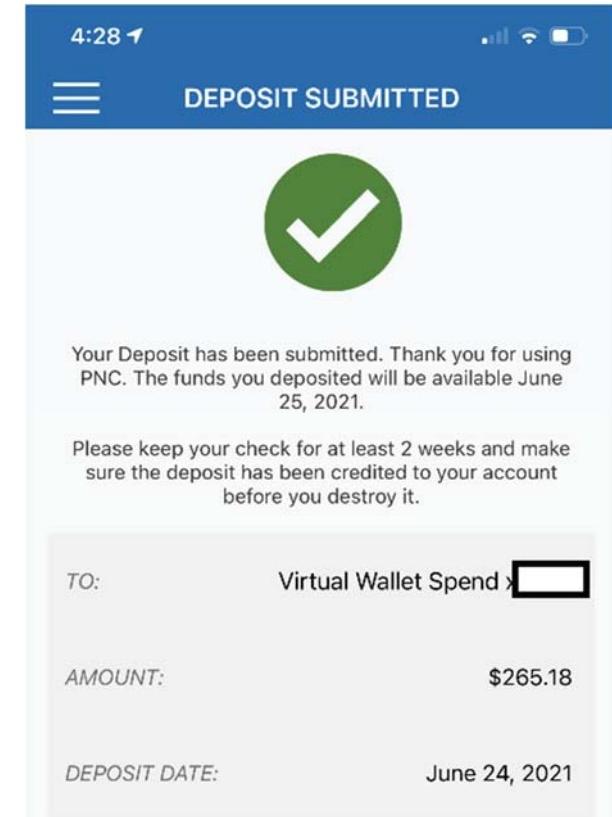
71. As another example, PNC Mobile Deposit checks for errors before submitting the photos of the check. For example, if PNC Mobile Deposit cannot recognize the magnetic ink character recognition (“MICR”) line contained in the photo of the check, it will display an error message stating: “The photo isn’t clear enough to deposit your check. Please retake the photo, making sure the check is well-lit and placed on a contrasting surface.”



72. As another example, PNC Mobile Deposit transmits a copy of the photo of the check using a wireless network.



73. As another example, the PNC Mobile Deposit system updates the account balance with the amount of the check submitted for mobile check deposit.



74. PNC also is inducing infringement of the '638 Patent, in violation of 35 U.S.C. § 271(b), including by knowingly encouraging or aiding third parties to make, use, sell or offer to sell PNC Mobile Deposit in the United States, or to import PNC Mobile Deposit into the United

States, and/or in violation of 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied PNC Mobile Deposit in or from the United States, without license or authority from USAA, with knowledge of or willful blindness to the fact that PNC's actions will induce others to directly infringe the '638 Patent. PNC actively encourages, directs, and controls third parties, including its end users, to make and/or use PNC Mobile Deposit in an infringing manner, including through PNC's website, advertisements, documentation/instructional material, customer support, application and feature descriptions, and in-application instructions. PNC has intentionally aided and encouraged third parties, including its end users, to use PNC Mobile Deposit in the United States in a manner that it knows would infringe or have a high probability of infringing the '638 Patent, with the specific intent that those performing the acts infringe the '638 Patent.

75. PNC is contributorily infringing the '638 Patent in violation of 35 U.S.C. § 271(c), by selling, offering to sell, and/or importing into the United States, and/or in violation of 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States, PNC Mobile Deposit for use in infringing the '638 Patent, constituting a material part of the invention, knowing PNC Mobile Deposit to be especially made or especially adapted for use in infringing the '638 Patent. PNC Mobile Deposit is not a staple article or commodity of commerce suitable for substantial non-infringing use.

76. As a result of PNC's infringement of the '638 Patent, USAA has been damaged. In addition, PNC's infringing acts and practices have caused and are causing immediate and irreparable harm to USAA. USAA is entitled to recover for damages sustained as a result of PNC's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

77. USAA alleges that PNC's infringement of the '638 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to USAA pursuant to 35 U.S.C. §§ 284-285. As discussed above, PNC has had knowledge of the '638 Patent and its infringement thereof. Despite having this knowledge, PNC has deliberately continued to

infringe in a wanton, malicious, and egregious manner, with reckless disregard for USAA's patent rights.

VII. THIRD CLAIM FOR RELIEF – '136 PATENT

78. USAA re-alleges and incorporates by reference the allegations of the preceding paragraphs of this Complaint as if fully set forth herein.

79. The '136 Patent, entitled "Systems and methods for remote deposit of checks," was duly and legally issued on December 29, 2015. A true and correct copy of the '136 Patent is attached as Exhibit C.

80. USAA owns by assignment the entire right, title, and interest in and to the '136 Patent, including the exclusive right to seek damages for past, current, and future infringement thereof.

81. USAA is informed and believes, and on this basis alleges, that PNC, agents of PNC, and/or third parties acting under PNC's direction and control, have committed and continue to commit acts of direct infringement of one or more claims of the '136 Patent literally and/or under the doctrine of equivalents, by making, using, selling, offering to sell and/or importing into the United States, PNC Mobile Deposit.

82. Further, PNC controls the infringing system as a whole and obtains benefits from it. Indeed, PNC requires users to use the infringing system in order to deposit checks to their PNC account via a mobile device, and provides terms and conditions governing their use. For example, PNC states on its website that "Use of the Mobile Deposit feature requires a supported camera-equipped device and you must download a PNC mobile banking app," and that all "mobile banking terms and conditions" apply.

83. For example, the PNC Mobile Deposit system processes a check deposit utilizing a plurality of processors, which have associated memories and are configured to execute instructions. This is illustrated, for example, in the following illustrative images from PNC's website and marketing materials.

The screenshot shows the PNC mobile banking homepage. At the top, there's a navigation bar with links for PERSONAL, SMALL BUSINESS, CORPORATE & INSTITUTIONAL, ABOUT, Español, Customer Service, Locations, Security, PRODUCTS & SERVICES, LEARNING, SUPPORT, OFFERS, a search bar, and a sign-on button. A yellow warning banner at the top right informs users about the Coronavirus (COVID-19) Paycheck Protection Program, stimulus checks, and additional information, with a link to "See How We Can Help". Below the banner is a large image of a woman smiling while holding a smartphone and a check, illustrating the mobile deposit process. To her right, a white callout box contains the heading "Mobile Deposit" and the text: "With the PNC Mobile app you can securely deposit checks and access funds using your tablet or mobile phone." A blue button labeled "Visit Mobile Apps Directory" is at the bottom of the box. Below the main image, the text "PNC Mobile Deposit", "PNC Express Funds", and "FAQs" are visible. The central content area features a large heading "See How Easy it is to Deposit a Check with PNC Mobile Deposit". It includes a screenshot of a smartphone displaying the "Capture Front of Check" screen over a check image. The check is from "M. MILLER" to "K. Price" for "one hundred dollars and 00/00" and is made payable to "PNCBANK". The check number is "02222222 0 123 111 555 5284" and the signature is "M. Miller". To the right of the screenshot, text states: "PNC customers deposit on average over 2.5 million checks per month^[2] using their mobile devices!" followed by a description of the deposit process, standard funds availability, and FAQs. There are also links to "Explore additional mobile banking options" and "Get started with online banking. Learn how »".

App Store Preview

This app is available only on the App Store for iPhone and iPad.

PNC Mobile Banking [4+]

Digital Banking Solutions
PNC Bank, N.A.

#46 in Finance
★★★★★ 4.8 • 1M Ratings

Free

Check balances & recent transactions – See current account activity for your checking, savings, credit card and loan accounts.

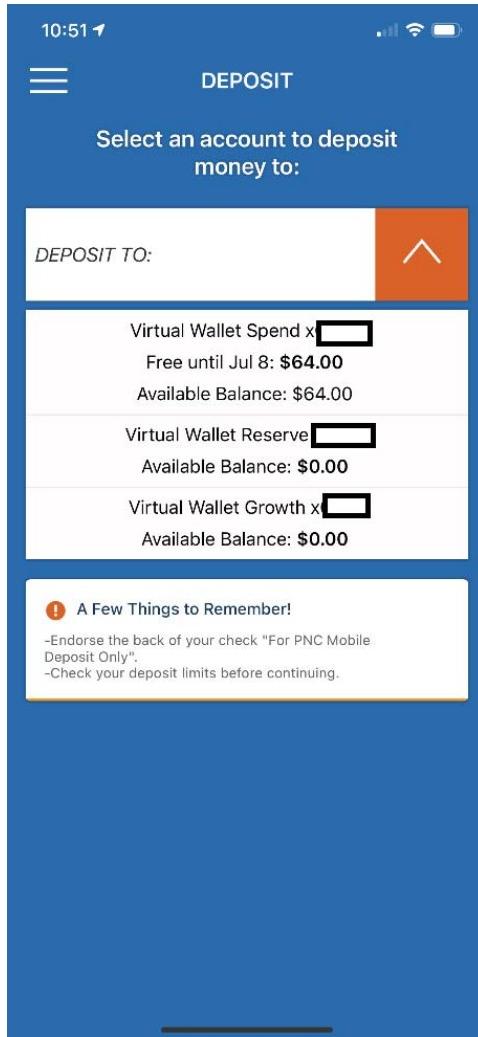
Protect your accounts – Set up Touch ID or Face ID to securely sign on to the app. Or, reset your password quickly and conveniently if you need to.

Send money with Zelle® – Send money simply, to people you know and trust (i) using your mobile number or email address.

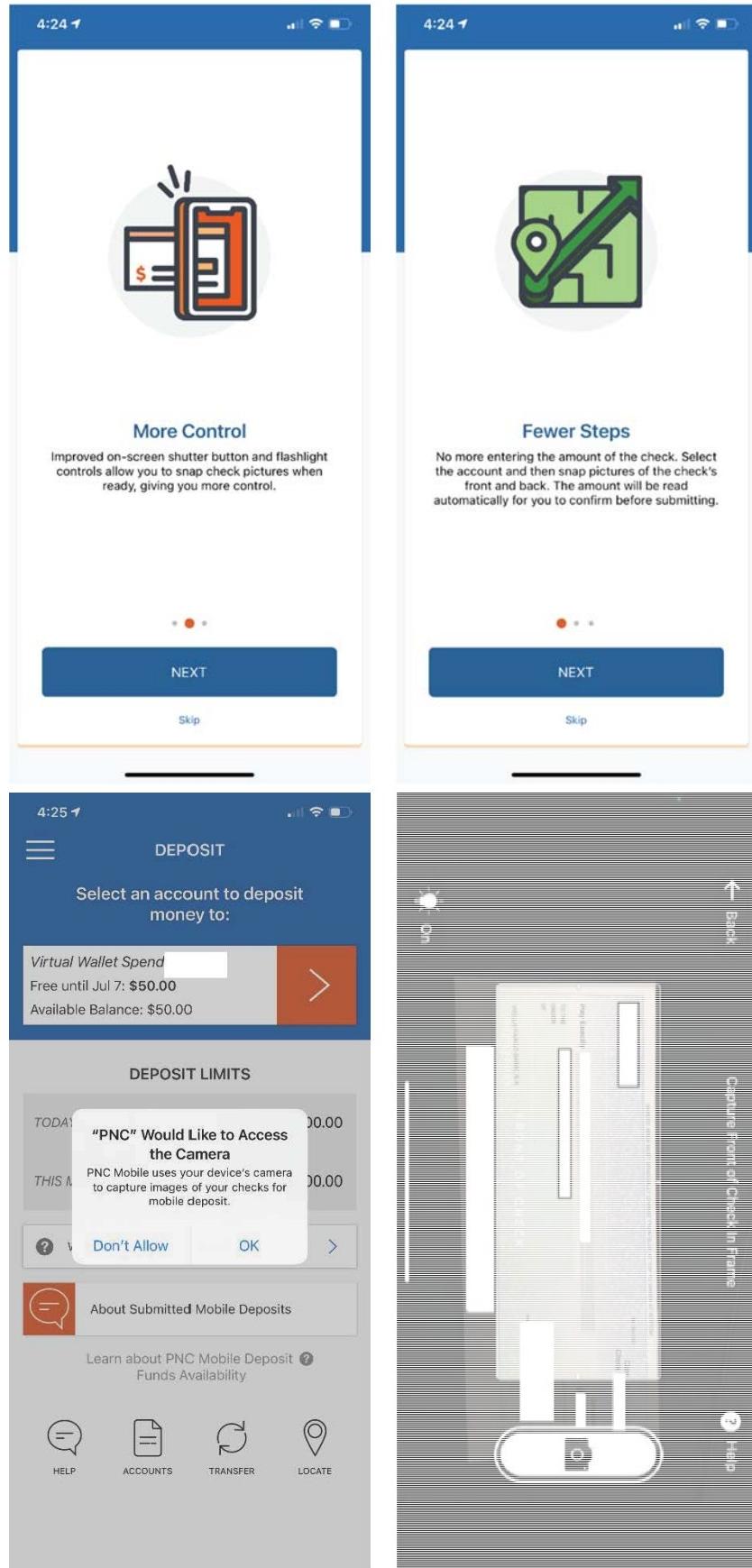
Transfer funds – Transfer funds between eligible PNC accounts and external bank accounts (ii).

Make deposits – Deposit checks quickly and easily with your iOS device (iii).

84. As another example, the PNC Mobile Deposit system receives a customer identification of an account for a deposit, including as depicted in the below screenshot from PNC's Mobile Deposit application version 4.20.1.



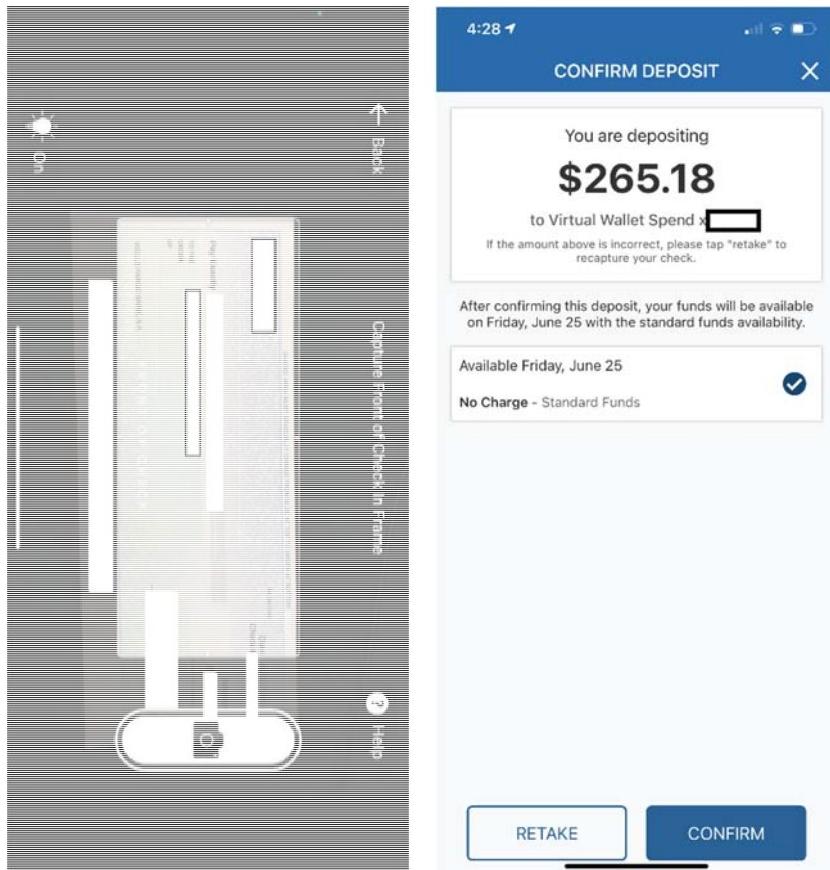
85. As another example, the PNC Mobile Deposit system receives an image of a front side of a check captured by a camera from a remote device.



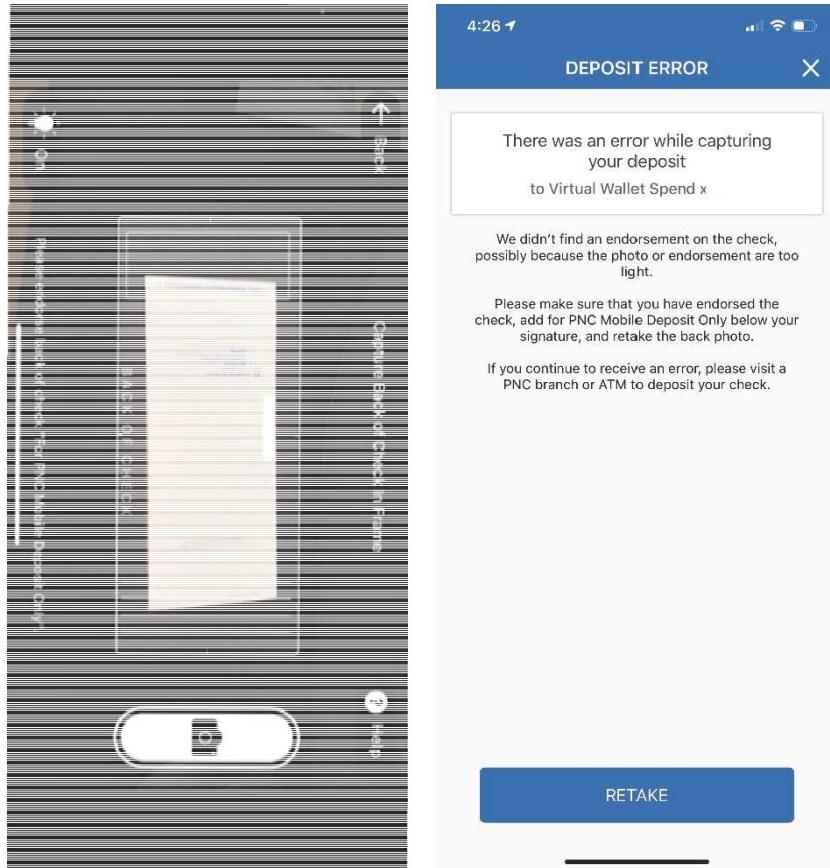
86. As another example, the PNC Mobile Deposit system receives an image of a back side of the check captured by the camera from the remote device.



87. As another example, the PNC Mobile Deposit system processes the image of the front side of the check to obtain deposit information for the check, such as the amount of the check.



88. As another example, the PNC Mobile Deposit system processes the image of the back side of the check to determine whether a mark is present, such as an endorsement. If the endorsement is not present, the PNC Mobile Deposit application will display an error message stating: "We didn't find an endorsement on the check, possibly because the photo or endorsement are too light. Please make sure that you have endorsed the check, add for PNC Mobile Deposit Only below your signature, and retake the back photo."



89. As another example, the PNC Mobile Deposit system generates a log file, which comprises at least a portion of the deposit information for the check. For example, applicable banking regulations for electronic processing of checks require that certain data be sent from bank-to-bank with the check image when completing the electronic check deposit process, including for example, detail records, addendum records, and image quality analysis records. On information and belief, PNC generates a log file to store at least some of this information.

90. PNC also is inducing infringement of the '136 Patent, in violation of 35 U.S.C. § 271(b), including by knowingly encouraging or aiding third parties to make, use, sell or offer to sell PNC Mobile Deposit in the United States, or to import PNC Mobile Deposit into the United States, and/or in violation of 35 U.S.C. § 271(f)(1), by supplying or causing to be supplied PNC Mobile Deposit in or from the United States, without license or authority from USAA, with knowledge of or willful blindness to the fact that PNC's actions will induce others to directly infringe the '136 Patent. PNC actively encourages, directs, and controls third parties, including its

end users, to make and/or use PNC Mobile Deposit in an infringing manner, including through PNC's website, advertisements, documentation/instructional material, customer support, application and feature descriptions, and in-application instructions. PNC has intentionally aided and encouraged third parties, including its end users, to use PNC Mobile Deposit in the United States in a manner that it knows would infringe or have a high probability of infringing the '136 Patent, with the specific intent that those performing the acts infringe the '136 Patent.

91. PNC is contributorily infringing the '136 Patent in violation of 35 U.S.C. § 271(c), by selling, offering to sell, and/or importing into the United States, and/or in violation of 35 U.S.C. § 271(f)(2), by supplying or causing to be supplied in or from the United States, PNC Mobile Deposit for use in infringing the '136 Patent, constituting a material part of the invention, knowing PNC Mobile Deposit to be especially made or especially adapted for use in infringing the '136 Patent. PNC Mobile Deposit is not a staple article or commodity of commerce suitable for substantial non-infringing use.

92. As a result of PNC's infringement of the '136 Patent, USAA has been damaged. In addition, PNC's infringing acts and practices have caused and are causing immediate and irreparable harm to USAA. USAA is entitled to recover for damages sustained as a result of PNC's wrongful acts in an amount yet to be determined and to receive such other and further relief, including equitable relief, as this Court deems just and proper.

93. USAA alleges that PNC's infringement of the '136 Patent has been and continues to be deliberate and willful, and, therefore, this is an exceptional case warranting an award of enhanced damages for up to three times the actual damages awarded and attorney's fees to USAA pursuant to 35 U.S.C. §§ 284-285. As discussed above, PNC has had knowledge of the '136 Patent and its infringement thereof. Despite having this knowledge, PNC has deliberately continued to infringe in a wanton, malicious, and egregious manner, with reckless disregard for USAA's patent rights.

VIII. PRAAYER FOR RELIEF

WHEREFORE, USAA prays for judgment against PNC as follows:

- A. That PNC has infringed, and continues to infringe, each of the USAA Patents;
- B. That each claim of the USAA Patents is valid and enforceable;
- C. That PNC pay damages adequate to compensate USAA for its infringement, together with interest and costs under 35 U.S.C. § 284;
- D. That PNC be ordered to pay pre-judgment and post-judgment interest on the damages assessed;
- E. That PNC be ordered to pay supplemental damages to USAA, including interest, with an accounting, as needed, of all infringements and/or damages not presented at trial;
- F. That PNC's infringement is willful and that the damages awarded to USAA should be enhanced up to three times the actual damages awarded;
- G. That USAA be awarded damages for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecution of this action, with interest, including damages for an exceptional case pursuant to 35 U.S.C. § 285 and as otherwise provided by law; and
- H. That USAA be awarded such other and further relief, including any and all injunctive and other equitable relief, as this Court deems just and proper.

IX. DEMAND FOR JURY TRIAL

94. Pursuant to Federal Rule of Civil Procedure 38(b), USAA hereby demands a trial by jury on all issues triable to a jury.

Dated: July 7, 2021

Respectfully submitted,

PARKER, BUNT & AINSWORTH, P.C.

/s/ Robert Christopher Bunt

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